

Notice of Allowability

Application No.

10/056,127

Examiner

Rafael Perez-Gutierrez

Applicant(s)

Chen et al.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendment filed on April 1, 2005.
2. ☒ The allowed claim(s) is/are 1,3-16,19 and 20.
3. ☒ The drawings filed on 07 May 2002 and 01 April 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Rafael Perez-Gutierrez
Primary Examiner
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DETAILED ACTION

1. This Action is in response to Applicant's amendment filed on April 1, 2005. **Claims 1, 3-16, 19, and 20** are now pending in the present application.

Drawings

2. The replacement drawing sheet received on April 1, 2005 has been accepted by the Examiner.

Allowable Subject Matter

3. **Claims 1, 3-16, 19, and 20** are allowed and they were renumbered 4, 5, 7, 15, 16, 13, 14, 8, 12, 9-11, 17, 6, 1, 3, and 2, respectively.
4. The following is an Examiner's statement of reasons for allowance:

Consider **claim 1**, the best prior art found during the examination of the present application, **Carlsson (U.S. Patent Application Publication # 2003/0119524 A1)**, fails to disclose, teach, or suggest that the location of the mobile-station is determined to be approximately at a candidate location defined by an intersection of a timing advance belt and a center divider of a serving sector when there are no non-negligible signal strength measurements associated with any same cell-neighboring sector or when there are non-negligible signal

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strength measurements associated with two same cell-neighboring sectors.

Consider **claim 3**, the best prior art found during the examination of the present application, **Carlsson (U.S. Patent Application Publication # 2003/0119524 A1)**, fails to disclose, teach, or suggest that the location of the mobile-station is determined to be approximately at a candidate location defined by an intersection of a timing advance belt and a sector divider of a serving sector and a same cell-neighboring sector associated with a non-negligible signal strength measurement when there is only one same cell-neighboring sector associated with a non-negligible signal strength measurement.

Consider **claim 16**, the best prior art found during the examination of the present application, **Carlsson (U.S. Patent Application Publication # 2003/0119524 A1)**, fails to disclose, teach, or suggest that if the first and second timing advance belts intersect at two points and only one point of intersection lies within a constraint polygon formed using signal strength measurements, the location of the mobile-station is determined to be approximately at the one point of intersection that lies within the constraint polygon or if the first and second timing advance belts intersect at two points and both points of intersection lies within a constraint polygon formed using signal strength measurements, the location of the mobile-station is determined to be approximately at an average of the two points of intersection.

Carlsson discloses determining the location of a mobile station using timing advance values and timing advance belts as well as signal strength measurements (see figures 5-7 and paragraphs 0032-0035), however, Carlsson fails to specify the approximate location determination of the mobile station as claimed by the present application. Therefore, claims 1, 3,

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and 16 as well as their dependents are novel and non-obvious in view of the prior art of record.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

5. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (571) 272-7915. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

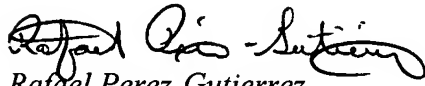
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

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supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.



Rafael Perez-Gutierrez

R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**
PATENT EXAMINER

April 29, 2005